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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,234	12/17/1999	MARK A. BEILEY	42390.P8081	9912

7590 09/16/2004

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EXAMINER

STULBERGER, CAS P

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/466,234	<b>Applicant(s)</b> BEILEY ET AL.	
	<b>Examiner</b> Cas Stulberger	<b>Art Unit</b> 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,7,8,10,11,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,9,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to communications: application, filed 12/17/1999; amendment filed 08/09/2004.
2. Claims 1, 4-6, 9, 12-13 are pending in the case. Claims 2-3, 7-8, 10-11, and 14-15 have been cancelled. Claims 1, 5, 9, and 12 are independent claims.

### ***Response to Amendment***

3. Applicant argues that "Piosenka does not disclose nor suggest a capacitor formed with a dielectric encasing element of the circuit." A capacitor consists of two metal plates separated by a dielectric. Figures 2 and 3 of Piosenka disclose two metal grids (plates) with a dielectric layer interposed between the grids (Piosenka: column 3, lines 12-16). This is the definition of a capacitor and meets the limitations of "a capacitor formed with a dielectric encasing element of the circuit."
4. Applicant also argues that Piosenka does not disclose nor suggest "a detector to detect changes in the capacitance of the capacitor." Piosenka discloses "detectors (not shown) on the integrated circuit will detect changes in capacitance or resistance and trigger zeroizing or clearing of all sensitive or confidential information within the integrated circuit thereby rendering the integrated circuit of no use to an attacker" (Piosenka: column 3, lines 29-36). This meets the limitation of "a detector to detect changes in the capacitance of the capacitor."
5. Applicant also argues that Piosenka does not disclose or suggest "a comparator to compare a reference voltage with a voltage at a node of the capacitor." Piosenka discloses that comparators are located within the critical circuit function area (Piosenka: column 6, lines 7-8).

Art Unit: 2132

Piosenka discloses that “there are comparators that constantly monitor the voltage output of sensors and compare this output to the reference voltage of a zener diode” (Piosenka: column 4, lines 63-66). This meets the limitation of “a comparator to compare a reference voltage with a voltage at a node of the capacitor.”

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-6, 9, 12, and 13, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,389,738 to Piosenka et al.

In regards to claims 1, 4-6, 9, 12, and 13 Piosenka disclosed a tamperproof arrangement for an integrated circuit device (Piosenka: Abstract). A dielectric layer is placed between two grid layers as shown in Figure 2. Attempts to penetrate this grid electrode finger structure will break the conductive path or remove a significant portion of a conductor and/or change the capacity or resistance between the top and bottom grids. Detectors will detect changes in the capacitance or resistance and trigger zeroizing or clearing of all sensitive or confidential information within the integrated circuit thereby rendering the integrated circuit of no use to an attacker (Piosenka: column 3, lines 12-45). Piosenka discloses that comparators are located within the critical circuit function area (Piosenka: column 6, lines 7-8). The comparators

Art Unit: 2132

constantly monitor the voltage output of sensors and compare this output to the reference voltage of the zener diode (Piosenka: column 4, lines 63-66).

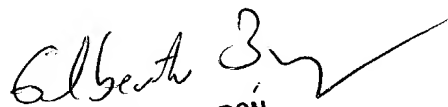
***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cas Stulberger whose telephone number is (703) 305-8034None. The examiner can normally be reached on Monday - Friday, 9:00A.M. - 5:00P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications, (703) 746-7240 for drafts, and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

CS  
September 14, 2004

  
GILBERTO BARRON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100